

REMARKS

The Official Action mailed January 14, 2004, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statement filed on May 21, 1999. A further IDS is submitted herewith and consideration of this IDS is respectfully requested.

Although the Official Action lists the pending claims as 1 and 3-44, in the Amendment filed September 5, 2001, claims 11, 18, 24 and 36 were canceled. Therefore, claims 1, 3-10, 12-17, 19-23, 25-35 and 37-44 are pending in the present application, of which claims 1, 8, 14, 21, 27 and 33 are independent. Claims 1, 14, 21, 27 and 33 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action rejects claims 1 and 3-44 as obvious based on the combination of U.S. Patent No. 6,011,533 to Aoki and U.S. Patent No. 5,883,609 to Asada et al. The Applicants respectfully submit that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present invention.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the

references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Independent claim 1 has been amended to recite a control circuit including a delay circuit operationally connected to at least one of the scanning line driving circuit and the signal line driving circuit; a video signal processing circuit operationally connected to the control circuit and the signal line driving circuit, where the delay circuit produces a phase difference in a second signal with respect to a phase of a first signal which is input to at least one of the signal line driving circuit and the scanning line driving circuit. These features are supported by the embodiment illustrated in Fig. 1, for example. Aoki and Asada do not teach or suggest at least the above-referenced features of the present invention.

Independent claim 8 recites a circuit for producing a phase difference in a second signal with respect to a phase of a first signal which is input to the signal line driving circuit or to the scanning line driving circuit. The Official Action asserts that the phase development circuit 32 of Aoki corresponds to the circuit for producing a phase difference of the present invention (page 2, Paper No. 15). The Official Action further asserts that Aoki discloses that "each of the first signal and second signal is a clock signal (Fig. 3)" (page 3, Id.). The Applicant respectfully disagrees with the above assertions in the Official Action. It appears that the signals output from the phase development circuit 32 of Aoki are not clock signals and are not input to a signal line driving circuit, i.e. data-side drive circuit 104 or to a scanning line driving circuit, i.e. scan-side drive circuit 102.

Asada does not cure the deficiencies in Aoki. The Official Action asserts that Asada "substantially shows the concept of using a circuit for producing a phase difference in a second signal with respect to a phase of a first signal which is input to the signal line driving circuit or to scanning driving circuit" (Id.). However, Asada does not teach or suggest modifying the phase development circuit 32 of Aoki such that the signals output from the circuit 32 are clock signals (instead of data signals) and such that those signals are input to a signal line driving circuit or to a scanning line driving circuit (instead of to an amplification and inversion circuit 34). Such a modification to Aoki would completely change the structure and function of the phase development circuit 32 of Aoki and does not appear to be taught or suggested in Asada. Therefore, Asada and Aoki, either alone or in combination, do not teach or suggest a circuit for producing a phase difference in a second signal with respect to a phase of a first signal which is input to the signal line driving circuit or to the scanning line driving circuit.

Independent claim 14 has been amended to recite that the first signal and the second signal are input to a same shift register. This amendment is supported by the embodiment illustrated in Fig. 2, for example. Independent claim 21 has been amended to recite that the first signal and the second signal are input to a same latch circuit. This amendment is supported by page 8, lines 22-25, for example. Independent claims 27 and 33 are amended in a similar manner to claims 14 and 21. Specifically, independent claims 27 and 33 have been amended to recite that a second signal is input to at least one of a signal line driving circuit and a scanning line driving circuit. Aoki and Asada do not teach or suggest at least the above-referenced features of the amended independent claims of the present invention.


Since Aoki and Asada do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained.

Futhermore, there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Aoki and Asada or to combine reference teachings to achieve the claimed

invention. The Official Action asserts that "it would have been obvious to one of ordinary skill in the art to modify Aoki's matrix display of Fig. 1, to adapt Asada's phase signals and scan circuits ... as configured in Fig. 15 to provide a multi-purpose display device which peripheral drive circuitry is operative with a small number of control signal terminals and an improved cost effect" (page 3, Paper No. 15). The Applicants respectfully disagree. The alleged motivation appears in Asada at column 2, lines 56-61. However, the alleged motivation in Asada is insufficient to teach or suggest completely changing the structure and function of the phase development circuit 32 of Aoki such that the signals output from the circuit 32 are clock signals (instead of data signals) and such that those signals are input to a signal line driving circuit or to a scanning line driving circuit (instead of to an amplification and inversion circuit 34).

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,



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